



National FlexFuel Vehicle Awareness Campaign

Moving the public from awareness to action.



Potential Benefits from Achieving the National Renewable Fuel Standard

The Opportunity

Congress, with the support of the president, passed the Energy Policy Act of 2005 which created the nation's first Renewable Fuel Standard (RFS) for gasoline and diesel. This historic law was in direct response to growing demands from the public to for the government to officially address the economic, environmental, and energy/national security implications the U.S. was experiencing from being dependent gasoline and imported oil. The RFS was expanded in Title II of the [Energy Security and Independence Act of 2007](#) (i.e., EISA and RFS2). The RFS is an opportunity if ethanol detractors are not successful in their attempts to delay, derail, or repeal it.

EISA requires U.S. gasoline refiners and blenders to sell 36 billion gallons of renewable transportation fuels per year by 2022. The RFS requirement limits the amount of ethanol from feed grains at close to its current capacity of 15 billion gallons per year (BGPY). Of the 36 BGPY RFS2 total, there are nested subsets of 21 BGPY of advanced biofuels, 16 BGPY of cellulosic biofuel, and 4 BGPY of "other" advanced biofuels, and a minimum of 1 BGPY of biomass-based diesel.

Projected Demand for Ethanol, 1st and 2nd Generation Biofuels and Biodiesel

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
BGPY	12.95	13.95	15.20	16.55	18.55	20.50	22.25	24.00	26.00	28.00	30.00	33.00	36.00

The positive economic, environmental, and energy/national security benefits of the federal RFS law, stemming from the production and use of ethanol and emerging biofuels, were recently validated by the U.S. Environmental Protection Agency (EPA) in the release of its [RFS2 regulations on February 3, 2010](#).

Or Lost Opportunity: Highlights from the EPA's RFS2 Regulatory Impact Analysis

Economic Security Impact Analysis

- ☑ The net economic benefit of the RFS in 2022 will be \$13 to \$26 billion to the U.S. economy.
- ☑ Capital investment into renewable fuel production is estimated at \$100+ billion.
- ☑ Rural development and net farm income will increase by 36%, or \$13 billion annually.
- ☑ The nation's imported oil bill will be reduced by \$34 billion annually.
- ☑ Consumers will save 4.1 cents per gallon on all gasoline and 1.8 cents for diesel. These savings amount to \$5.9 billion for gasoline, \$1.3 billion for diesel, for a total savings to consumers of \$7.2 billion per year. Depending on the mix of diesel to ethanol, the range could go up to a total of \$11.8 billion in total fuel cost savings. Fuel savings were based on baseline assumption that oil would cost \$88 per barrel in 2022.
- ☑ Consumers could pay as much as \$10 more per person on food prices annually.

WAITING FOR APPROVAL FROM EPA -- "The renewable fuel standard (RFS) and the recent RFS2 rule making represented the most peer reviewed and commented on regulation during my 30 years at the EPA. The release of the RFS2 regulations represents hundreds of thousands of hours of research, analysis, and input from government, industry, academia and the public. The results of the research and the RFS2 Regulatory Impact Analysis quantifies and validates the economic, environmental, and energy/national security benefits of the use of biofuels to meet the federal RFS." *Margo T. Oge, Director, Office of Transportation and Air Quality Office of Air And Radiation, U.S. Environmental*

Environmental Security Impact Analysis

- ☑ Greenhouse gases will be reduced by 138 million tons per year or the emission reduction equivalent of removing 27 million vehicles from the nation's highways.
- ☑ Carbon monoxide will be lower due to lower exhaust emissions.
- ☑ Carcinogens (e.g., benzene down 2.5%) and other air toxics will be reduced due to the displacing of gasoline with ethanol/biofuels.

Energy Security Impact Analysis

- ☑ The U.S. imports 66% of its oil needs and 70% of its transportation fuels. The RFS will save \$2.6 billion annually in energy security by 2022.

The RFS represents an opportunity for the United States only if the public is aware of its benefits and increased public education then translates into support for ethanol in the marketplace, and from elected officials.

How Can Biofuel Stakeholders Protect the Renewable Fuel Standard?

The Challenge: The E10 Blend Wall

According to DOE data 138 BGPY of gasoline were sold in 2009. If 10% ethanol were blended into all 138 BGs the U.S. gasoline pool would only hold 13 BGs of ethanol. The 13 BGPY ethanol limit, at E10, is referred to as the E10 blend wall. The 2009 11.1 billion gallon RFS requirement translates into refiners needing to use 10.21% ethanol in their gasoline pool. The percentage of renewable fuels being added to gasoline increased by nearly one third, from 7.76% in 2008 to 10.21% in 2009 -- because gasoline demand is decreasing. Gasoline demand could continue to decrease as more biofuels are produced and alternative and efficient vehicles are sold. Currently, only blends of 10% ethanol (E10) are permitted in conventional vehicles, while up to 85% ethanol can be blended in FlexFuel Vehicles (FFVs). Simply stated, current ethanol production from feed grains will soon reach 15 BGPY and all gasoline will be E10.

Breaking Through the E10 Blend Wall

To break through the E10 blend wall gasoline with higher percentages of ethanol will need to be purchased by consumers. Currently, E85 or E20-E85 (sold in “blender pumps”) are the only options for consumers to fuel their FFVs. Despite rapid growth in the number of E85 pumps in the past five years, and now blender pumps, there are still only about 2,200 out of 170,000 retail gasoline stations carrying higher blends of ethanol. Data from the Minnesota Department of Commerce suggests that 20.4 million gallons of ethanol was used in E85. Extrapolating that result to the entire nation yields 100 million gallons per year of ethanol. People are buying the product and putting it in their FFVs.

Another emerging opportunity is selling E15 and E20 for use in non-FFVs. DOE, EPA, and industry are researching the performance and emission impacts of increasing the amount of ethanol that can be blended and the research is positive – with two important caveats -- it is not mandatory and vehicle model/year restrictions may apply. Approval of E15 would expand the blend wall from 13 BGPY to about 20 BGPY -- if every gasoline retailer chooses to sell and every consumer chooses to buy E15. The E15 blending wall is extended to 15 BGPY assuming a 50% voluntary participation by consumers and retailers. In spite of this success, there is blending wall in the way of reaching the 36 billion gallon requirement of the RFS – and there is a need to find a home for another 21 BGPY. In 12-24 months consumers will need to voluntarily make the choice to use higher than 10% blends in their conventional vehicles or their FFV. FFV owners will likely be the early adopters of higher ethanol blends including E15 – but only if FFV owners know they have one, there is a RFS law, and the benefits from the law are validated. FFV Awareness is not an alternative to developing E15+, it is part of a portfolio approach that will have many educational and outreach benefits.

Meeting the Challenge: FFVs Owners Hold the Key

There are 8 million FFVs owners on the road today. However, about 90% of the existing FFV owners don't know they have a special vehicle. Why? Because automobile dealerships thought that without E85 refueling stations available during the past ten years selling FFV as an attribute to consumers was no helpful. That has changed in many markets where the concentration of FFVs is high enough to attract E85 pumps. If FFV owners are not aware of their vehicles attributes it is highly likely they are also not aware of or have tried E15+ or E85. In addition, because of a lack of awareness, it is also highly likely that consumers actively searching for a new vehicle will not consider purchasing an FFV. Chrysler, Ford and General Motors are on track to meet their promise to America of making 50% of their new cars FFVs by 2012. At current production rates there will be over 12 million FFVs on the road by 2012 and millions more will be coming off the assembly line each year. Have you ever seen an FFV commercial?



What is at risk and what are gasoline/oil dependency options? It took U.S. automakers 15 years to reach a level of 8 million FFVs. It has taken Toyota nearly 10 years to reach a level of 1 million Prius' sold. There is only one OEM natural gas vehicle for sale and it is estimated that it will be 2020 before there are 2.8 million fuel cell vehicles on the road. Considering it takes 17 years to turn over the existing 230 million vehicles on the road, consumers will be very interested to know the RFS is the immediate and mid-term alternative to imported oil, dependence on gasoline, and the path to enhanced economic, environmental and energy/national security. Based on today's technology and market conditions, FFV owners hold the key, literally, to meeting the requirements of the RFS and protecting this law in the future. National surveys often show consumers are ready for fuel, vehicle and environmental change – let's give it to them. How can we use the RFS as the catalyst to begin to teach 12 million drivers about the personal value of economic, environmental, and energy/national security?

A National and State FFV Awareness Campaign

National FlexFuel Vehicle Awareness Campaign

Sector	Federal FFV Campaign					State FFV Awareness Campaign				Sector
Target	Federal Government					Governors Biofuels Coalition				Target
Partners	<div>DODCommerceDOTDOEEPAUSDA</div> <div>Secretary's Office: Help Align Relevant Program Offices with Presidential Biofuels Directive and Biofuels Interagency Working Group</div> <div>Military BasesEcon. Dev. Adm.NHSTAEEREOTAGRural Dev.<div>GSABiomassVehicle Technology/Clean Cities</div></div>					<div>IowaIllinoisNebraskaMinnesotaMissouriFloridaGeorgiaMaryland/Virginia/DC</div> <div>Governor's Office • State Energy Office • Dept. of Motor Vehicles State Fleets • State Inspection Offices • State EPA State Economic Development Office</div>				Partners
Action	Endorsement of the FFV Awareness Campaign. Add Website Information, FFV Logo, and Information Links to the Agency Websites. Funding.					Endorse the Campaign, Create Website Information, Promote the FFV Decal, Create the Biofuels Policy Gap Analysis. Support 3 Special Events: FFV Awareness Campaign Press Conference, Public Launch, Biofuel Stakeholder Meeting to Develop a Strategic Plan. Funding.				Action
Sector	Industry					State/Industry				Sector
Target	National Non-government Organizations					State/Regional Biofuels Stakeholders				Target
Partners	<div>Alternative FuelAutomakersEnvironmentalFeedstockFaithNational/State Associations</div> <div>CFDC • Growth Energy • RFA • Bio 7 Major Environmental Organizations • 5 Major Faith Groups Agriculture, Forest Owners, & Waste • Chrysler, Ford, GM (Auto Alliance) Assoc. of Motor Vehicle Administrators • National Assoc. of State Energy Officials</div>					<div>Ethanol ProducersE85 Wholesaler/RetailersAuto DealershipsRelated NGO'sClean Cities CoordinatorsProfessional Sports Teams</div> <div>Monsanto • Enterprise • National Football League • DuPont Ford/GM/Chrysler Dealers • State Corn Growers Organizations Major League Baseball • Local Ethanol Producers</div>				Partners
Action	Endorsement of the FFV Awareness Campaign. Add Website Information, FFV Logo, and Information Links to the Agency Websites. Funding.					Endorse the Campaign, Create Website Information, Promote the FFV Decal, Create the Biofuels Policy Gap Analysis. Support 3 Special Events: FFV Awareness Campaign Press Conference, Public Launch, Biofuel Stakeholder Meeting to Develop a Strategic Plan. Periodically Publish Articles and Announcements to their Internal Communications Network. Funding.				Action

The Solution: Empower the Consumer with Knowledge and Choice

The U.S. Needs a National/State Driver Education Campaign Supporting the RFS and FFVs

Consumers can not take advantage of the market choices created by the RFS, or receive its benefits by purchasing an FFV or using E85 if they do not have enough information to make an informed decision. A quick review of government, state government, and commercial literature and websites will reveal that there is a void of information to make the public aware of the RFS or FFVs. This campaign will help locate, educate, and motivate drivers of FFVs to use higher than 10% blends of ethanol in order meet and keep the requirements of the RFS. This effort will also lead to consumers being more aware of energy policy and other choices in the marketplace. This campaign was designed to help sustain the economic, environmental and energy/national security benefits of the nation's RFS.



Federal Government Awareness Campaigns Change Public Perception and Behavior

No one would object to the statement “education is vital to our nation's energy future.” It is clear that in order to remain competitive economically, we need an educated populace. The void of energy education needs to be closely examined and our leaders need to be challenged. The precedent for energy education specifically related to the RFS is clear. The government has a great track record with other issues.

Examples include the goal to reduce smoking, encourage recycling, Energy Star and energy efficiency goals, H1N1 preparedness, cancer and AIDS awareness, reminders about military service and recruiting youth to serve in the armed services, Homeland Security preparedness and awareness, and alcohol/drug /spouse abuse projects. Driver education campaigns such as wearing a seat belt, not driving under the influence, aggressive driving, and motorcycle and bike safety are just a few

examples. Driving is a privilege and with it should come the responsibility of knowing that using gasoline has a direct impact on the person's economic, environmental and energy/national securities.

All federal agencies have employees, vehicles, newsletters, websites, and some jurisdiction with goals for economic, environmental and energy/national security – if not directly, indirectly as supporting the best interest of their work force. There are many no-cost and low-cost activities and resources that need to be activated and leveraged for the common goal of improving domestic energy policy and supporting the RFS.

“President Clinton has called on all the Departments of the Federal government to develop employee awareness campaigns to help combat domestic violence” -- February 21, 1996.

President Obama today announced steps to further his Administration's commitment to advance biofuels research and commercialization. Specifically, he signed a Presidential Directive establishing a Biofuels Interagency Working Group. The departments of Agriculture and Energy, and the Environmental Protection Agency to Lead Efforts. The announcement includes Recovery Act Funds for Biofuels Research and Commercialization -- The White House, Office of

Today the White House teams up with Department of Health and Human Services and the Centers for Disease Control and Prevention to launch a \$45 million campaign to raise awareness on AIDS, an issue the President has spoken passionately about for years. -- New AIDS Awareness Campaign: April 7, 2009.

The “Own Your Future” Long-Term Care Awareness Campaign is a joint federal-state initiative to increase awareness among the American public about the importance of planning for future long-term care needs. As of January 2010, 25 states have participated in the “Own Your Future” Campaign to increase the awareness of the need to plan for future long-term care services. State efforts include letters to constituents between the ages of 45-70, promotion of the Campaign, including through an initial press conference, and development and dissemination of state based information and resources, such as long-term care websites.

Examples of Federal Government Awareness Campaigns

[national breastfeeding awareness campaign](#)

[national environment awareness campaign](#)

[national infertility awareness campaign](#)

[federal employees campaign contributions](#)

[national debt awareness campaign](#)

[national mental health awareness campaign](#)

[national bullying awareness campaign](#)

State Governments Can Play a Critical and Immediate Role

Similar to the federal government states have energy, environmental protection, and economic development offices that have overlapping goals with benefits generated by the RFS. State Department of Vehicles can play a critical role in driver education and locating the FFV owners that are in their database. Their network of education, testing, registration, inspection, mailing, and internet driven information is best suited to start the campaign and have an immediate impact. There are many low-cost and no-cost activities that states can initiate that will help the nation and the public reap the benefits of the RFS. There are several priority markets targeted for an FFV Awareness Campaign that have the right combination of Governor, industry, and NGO support.

National Biofuel Industry Stakeholders Can Work Together

The RFS creates a unifying position as it federal law and survived 30 years of scrutiny and testing. There are FFVs and E85 in nearly every state and nearly every major gasoline market has supplies of ethanol to meet oxygenated fuel, reformulated gasoline or the requirements of the RFS. As a result, major oil and auto companies are starting to invest in biofuel technologies. The RFS is an opportunity for industry to show they are working together across segments, with federal and state governments to bring consumers choice and the type of fuels they are demanding – and its law anyway. The campaign is an opportunity for refiners, gasoline retailers, local ethanol producers, local automobile dealerships, renewable feedstock owners that have a vested interest in sustaining the RFS to reach their customers and employees about the benefits of the RFS program and help drive the FFV Awareness campaign.

Can the Federal and State Governments Working Together?

In an effort to reduce America's dependence on imported oil, President Barack Obama is working to develop a national biofuels strategy through a [strategic partnership with the Governors' Biofuels Coalition and members of his Administration.](#)

For fifteen years, the Governors' Biofuels Coalition has provided national leadership on biofuels issues, including ethanol, biodiesel, advanced biofuels, co-products, and technologies yet to come.

Non-Government Organizations (NGO's) Can Support Their Missions by Supporting the RFS

Many national organizations, and state level, have called for dramatic changes in energy policy, especially transportation fuels. This is their immediate success story and path forward. The cross sector of organizations that collectively are working on economic, environmental and energy/national security is impressive. While RFS may not address all of their advocacy goals, there is overlap in many cases. Similar to ethanol surviving the scrutiny of the government and industry, the RFS has also survived because of a growing interest from the environmental community, consumer groups, and faith groups looking for ways to help prevent climate change. Historically, these groups have disagreed on tactic and policy and sometimes ethanol. However, the RFS2 release has created common ground and progress. Similar to the federal and state governments, each of these organizations has influence on the public and an internal communication network to reach employees, members, vehicle, and websites that convey their products, services and community involvement with charitable events. Considering the bleak outlook for alternatives to biofuels, these organizations should endorse the campaign – if asked.

The Public Can be Involved Too

Times have changed and surveys prove it. Consumers have reached a tipping point. Green products and ideas are the rage. However, there has never been an opportunity for the public to become actively engaged in promoting alternative fuel vehicles or fuel choice. If the public is willing to join environmental groups, change a light bulb, and recycle – they should want to become involved in changing the landscape for alternative fuel vehicles, fuel choice, and want to voice their opinion. But consumers are going to need help crossing the early adopter chasm created by FFV awareness over to the early majority sector where they will become brand enthusiasts. Instead of the traditional one way flow of public education information, the FFV Awareness Campaign will work with the FlexFuel Vehicle Club to create a place for FFV enthusiasts to continue their education and participate in market rewards for their good citizenship. The RFS just got personal.

The public needs to be moved from awareness to action!

Consumer action in the marketplace has to lead the demand for increased use of higher blends of ethanol in FFVs, or the RFS is at risk and there will be attempts to reduce the requirement with waivers or repeal it entirely.



The RFS and FFV Awareness Campaign Creates Safe Common Ground for Collaboration and Cooperation

Who Would Like to Support a National/State FFV Awareness Campaign?

It would be an interesting exercise to see which companies and organizations would come forward and say they are **NOT** for job creation, enhance energy security, supporting the troops, not funding terrorism, increasing domestic low carbon renewable fuels, lowering greenhouse gases and air toxics from vehicles, reducing gasoline consumption, decreasing oil imports, decreasing the federal deficit. There is simply no reason why the majority of companies or organizations could not support need for increased public education about the RFS. If there are such companies, they should be noted in a very public place.

What Can Be Done?

A federal or state agency, or an NGO with a similar alternative fuel related mission could begin a progression of no-cost and low-time activities to immediately engage in the national or a state campaign that could include ☒ endorsing the campaign by providing a logo ☒ add campaign logos and website links to websites ☒ notify employees/members and run related campaign articles periodically ☒ fund/support national development and sustainment efforts ☒ adopt/support an FFV Awareness Campaign in the state or targeted cities.

Commercial businesses can ☒ endorse the campaign by providing a logo ☒ place FFV decals at point at purchase areas, on vehicles, in vehicle service areas, show rooms, websites, inspection stations, ☒ add campaign logos to websites and link to related websites ☒ notify employees/customers and ☒ publish campaign articles provided periodically ☒ fund/support national development and sustainment efforts ☒ adopt/support an FFV Awareness state/city ☒ donate rewards (products and services) for FFV identification programs ☒ support a tag and release projects at a major NFL, MLB, NBA sporting events.

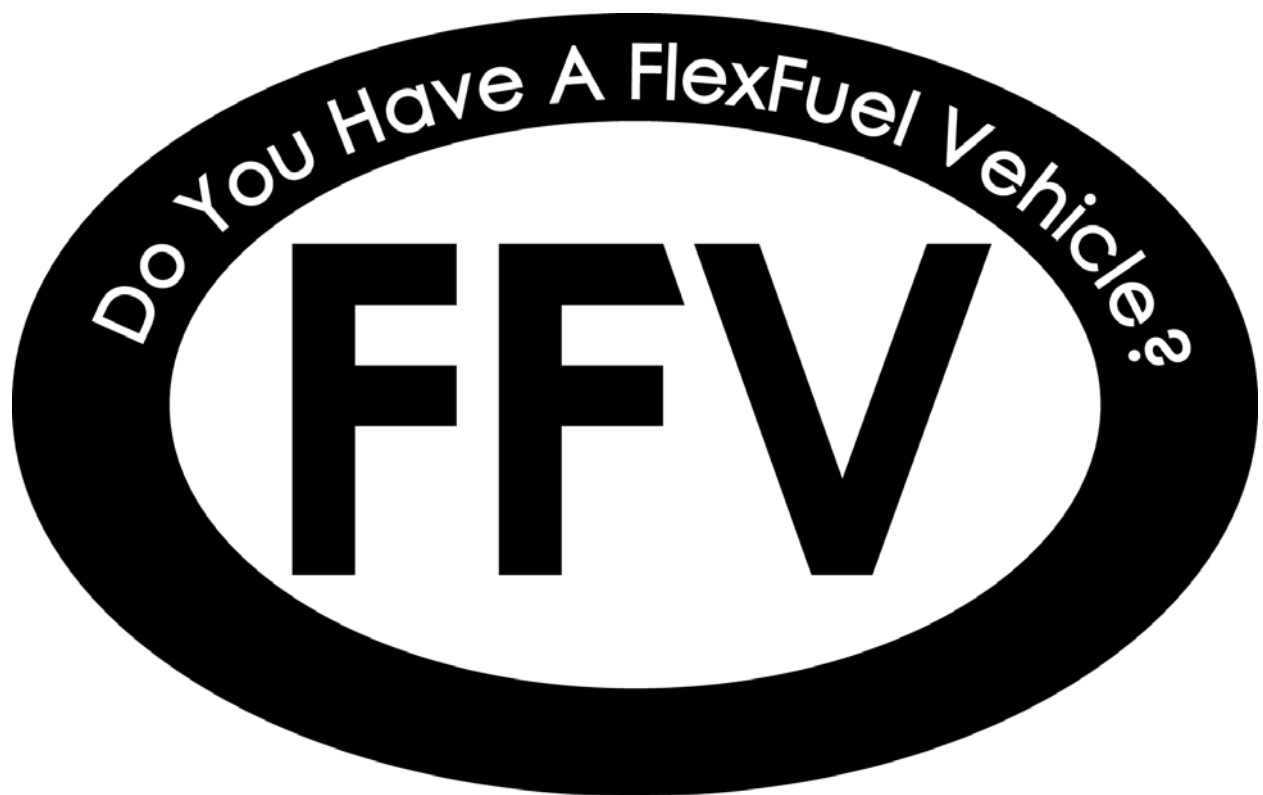
Who is going to Champion the FFV Awareness Campaign?

The Clean Fuels Foundation is working to identify, acknowledge, and engage all interested companies and organizations that would like to collaborate on implementing a national and/or state level driver education campaign aimed at FFV owners and supporting the RFS. The Foundation project managers will request endorsements, seek financial support, monitor selected activities, create and execute special events, and generate reports to stakeholders based on feedback from meetings and stakeholders. By passing ownership of state campaigns, promotional materials, and creating new champions, the foundation will serve as a clearing house and stakeholder organizer. It will also serve as the coordinator for the FlexFuel Vehicle Club which will become a virtual showroom for individuals and organizations wishing to display their enthusiasm for the RFS, their FFVs, and their use of higher blends of ethanol.

Organizations and Companies Endorsing the National FFV Awareness Campaign

(The logos below are being used only as for graphic illustration and as endorsements have not been officially requested)







The Current Public Education Campaign: The Sign of Things to Come?

Tulsa, Oklahoma August 13, 2009

